DOCUMENT RESUME

ED 075 024 JC 730 094

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TITLE A Quantitative and Qualitative Analysis. 1972 August Developmental Project.
INSTITUTION City Univ. of New York, Staten Island, N.Y. Staten Island Community Coll.
PUB DATE 72
NOTE 16p.

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS *College Freshmen; *Community Colleges; Post Secondary Education; Program Descriptions; Remedial Mathematics; *Remedial Programs; Remedial Reading; *Summer Programs

ABSTRACT

The College Discovery program at Staten Island Community College implemented a summer program in 1972 for entering freshmen diagnosed, by means of a placement test battery, those needing remedial work in English and math. The goal of the project was to bring these students up to college-level proficiency. Participants re-took the test battery at the end of the summer and filled out a brief questionnaire assessing their views of the program. Participants were counseled during the program individually and in groups. A stipend covering transportation and lunch was given to each student. Students submitted ongoing evaluations of their work and attitudes, teachers submitted weekly evaluations, and grades were based on attendance to encourage a more relaxed atmosphere. At the end of the program, each student received a comprehensive oral and written evaluation from each member of the faculty. More than half the participants demonstrated that they were capable of doing regular rather than remedial work at the end of the program. Others had considerably improved, though remedial work was still needed. Motivation was high, students enjoyed the program, and the group sessions and informality helped to "demystify" the educational process. It is recommended that the program be lengthened from four to six weeks, that enrollment be increased, that the program be mandatory for remedial students, and that the curriculum be expanded. (KM)

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1972 AUGUST DEVELOPMENTAL PROJECT

A Quantitative and Qualitative Analysis

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JC 730 094

UNIVERSITY OF CALIF.
LOS ANGELES

MAY 18 1973

CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION

I. INTRODUCTION

"College Discovery was developed on the Staten Island Community College campus in 1968 in a rather non-traditional manner, that is, College Discovery is the only program of its kind in CUNY that has its own teaching faculty. The entire College Discovery administration, instructional staff, psychologist and counselors are housed in the same facility. Ours is, in fact, an urban learning center and experimental educational environment. The peculiar characteristics of College Discovery students, (i.e., the various academic, social, and economic factors which made them originally eligible for the program) was the rationale for housing the entire College Discovery unit in the same setting. Within this format, College Discovery could more effectively service the student as a whole person by integrating academic and supportive services."

"The College Discovery program as of September 1, 1971 has been moving toward the development of an urban learning center. Therefore, since we have been in the process of transition throughout the current academic year, we have placed major emphasis on problems related to program review, expansion, and re-direction."

Throughout this period of self-investigation it has become apparent that the most important goal of the program is to effectively prepare its students for college level work: to provide every individual with the opportunity to acquire the necessary basic educational skills and foundation to survive in the academic community and compete for jobs. Many of our students come to college ill-prepared with unrealistic goals and notions of what college is supposed to be. In order to support our students and help them to overcome their inadequate high school experiences which have, in turn, led to a lack of self-confidence and motivation, we must redefine our priorities.

Although College Discovery has been striving in every conceivable way to grow and meet the needs of its increasing population, it has become impossible to do so within the confinement of the traditional two-semester academic year. Our current approaches, i.e., the added tutorial hour and learning lab, though quite helpful, just do not suffice in overcoming the previously built-up and reinforced educational problems that actually exist among out students. As we have moved closer to the center of really becoming an urban learning center it has become quite obvious that to function only part of the year is inconsistent with its purpose of involving the student on a year-round basis.

Thus, an organized summer program would extend everyone's involvement and create a bridge between high school and the College Discovery experience at Staten Island Community College. This would allow the learning center to operate on an annual basis and provide for a greater utilization of time and talent.

With all the above in mind, in the spring of 1972, College Discovery ambitiously put together a placement test battery (see appendix), in order to more effectively diagnose the developmental needs of the population. This placement testing in mathematics, English and science demonstrated that a large number of students has "serious" remedial

needs. It became more obvious that College Discovery students should be given the opportunity to remedy these deficiencies before the beginning of the fall term. This, coupled with intensive counseling and group orientation to the college setting, would, hopefully, afford these students the sufficient headstart they needed to cope successfully with a regular college curriculum.

The idea to create a summer program was discussed for some time. However, budgeting and staff did not become a realization until early in July. During this month the writer, keeping in mind the recommendations of the College Discovery "summer team", put together with a most cooperative and enthusiastic administration and staff the following remedial program which became known as "The August Developmental Project."

OBJECTIVES

The purpose and goals of the project were as follows: To help prepare entering freshmen for college level proficiency in mathematics and English, thus, increasing their chances of survival in college.

A. ENGLISH GOALS AND OBJECTIVES

1. Improve each student's reading and writing ability.
2. Inspire students to develop a joy for reading and writing.
3. Improve other communication skills

    a) listening
    b) speaking
    c) researching
    d) abstract thinking

4. Allow students to enter non-developmental English classes on a competitive basis.
5. Increase each student's writing fluency.
6. Increase each student's feel for his/her writing style.
7. Create a situation where each writing experience will deal with one of the communication skills. The content of the papers will depend on student and teacher interest and that each paper will have a purpose. Each person's problem with grammar will be dealt with as is demonstrated in his/her writing.
8. One of the following skills will be developed in each task.

    a) summary
    b) analysis
    c) generalization
    d) comparison
    e) defining
    f) organizing a research paper
    g) observing
    h) categorizing
    i) argumentation

9. Enable each student to write a coherent essay. In each paper deal with the following:

   a) Making meaning of words
   b) paragraph development, what is a paragraph, etc.

10. Reading will be tied into writing tasks -- work to improve the following areas:

    a) comprehension
    b) inference
    c) vocabulary
    d) reading rate
    e) skimming
    f) specialized study reading
    g) reading for the main point
    h) fluency

11. Involve students as much as possible in choosing materials and aiding in the shape of the seminars.
12. Utilize students in the role of teachers whenever possible.
13. Each weekly writing sample will be evaluated and commented upon.
14. Students will develop a portfolio of progress and achievement.

B. MATHEMATICS -- GOALS AND OBJECTIVES

1. Each student will be ready to complete Math 15 successfully.
2. Each student will improve his/her score on the College Discovery placement test.
3. Students will enjoy mathematics and feel comfortable with mathematical language.
4. Each student will examine his/her relationship to mathematics, i.e., mathematics for its own sake, practical everyday mathematics, mathematics as a discipline and training for the mind, mathematics as a possible career.
5. Class sessions will be organized as workshops and will emphasize participation.
6. No previous mathematical experience will be assumed.
7. Content: Basic Operations

   a) addition and subtraction
   b) multiplication and division
   c) evolution and involution
   d) whole numbers
   e) signed numbers
   f) decimals
   g) fractions
   h) relations to set theory
   i) algebra

j) per cent, discount rate, interest rate, income tax returns
k) verbal problems
l) averages, ratio and proportion, mixtures
m) square root, radicals, irrationals, exponents
n) number series
o) fundamental geometrical relations
p) linear equations

C. COUNSELING: GROUP AND INDIVIDUAL GOALS

1. Increase student awareness -- Orientation
2. Help students to make a better adjustment to college through individual and group discussion (Survival Techniques)
3. Develop appreciation that personal and academic growth are possible and that there is a relationship between the two. Explore areas that interfere with personal and academic growth
4. Develop an educational strategy
5. Being in the classroom to perceive student reaction to educational process
6. Deal with everyday problems, i.e., financial aid, housing, jobs, etc.

OPERATIONAL HYPOTHESIS

1. Students enrolled in "The August Developmental Project" will get higher scores on the Mathematics and English placement examinations than a control group coming from the same population.

2. These students will find the summer experience a valuable one and will be more confident about their survival in college. In addition, they will feel more positive about the College Discovery program. This will be based on a qualitative questionnaire distributed at the end of the 1972 August Developmental Project.

II. METHOD AND PROCEDURE

Fall 1972 Freshmen were required to take placement examinations in mathematics and English as part of their registration procedures. Scores on both mathematics and English tests were ranked and those students falling in the lowest sector of both distributions were invited to participate in the summer program. Students were asked to re-take the placement examinations at the conclusion of the summer program. A control group of ten students was also asked to re-take the examinations.

Letters were sent to 75 students with low scores, asking them to volunteer for the program. Out of the 75 letters sent out there were 22 affirmative responses. Thus, 22 enthusiastic students registered for the program. However, since three students did not take a complete testing battery before and after the program, they were excluded from the final quantitative analysis of results.

At the conclusion of the program students were asked to fill out a brief nine-question questionnaire assessing their views of the summer experience.

In addition, attendance records were examined and dropouts, withdrawals, etc., were evaluated. The counselor in the program met regularly on an individual basis and in groups with all the students in the program.

IMPLEMENTATION

1. MEETINGS

The coordinator met with the faculty as a group once per week to evaluate the progress of the program and individually once per week. He also met with the student tutors twice weekly (student tutors met with the faculty every day).

2. GRADES, ATTENDANCE, AND EVALUATION

A. Students submitted on-going evaluations on their own work (usually once per week) and their feelings about the program.
B. Teachers submitted weekly reports and evaluations of the program which were discussed at weekly staff meetings.
C. Attendance was taken religiously every day.
D. Grades were to be based on the student's attendance. The staff decided that they would be able to communicate in a more relaxed atmosphere without the students competing for grades. If the student attended on a regular basis he/she was automatically given an A. At the end of the program each student received a comprehensive oral and written evaluation from each member of the teaching faculty (see appendix). This evaluation gave the student a sense of his/her progress and "where the student was really at" in terms of skills.

This evaluation would assess the student's strengths and weaknesses.

E. After completion of the summer program students were advised to:

1) Continue to take developmental courses
2) Continue to take developmental courses in addition to regular courses
3) Take only regular courses

The above were decided on the following basis:

1) Teacher evaluation
2) Counselor evaluation
3) Placement test score at the end of the program

3. SCHEDULE OF CLASSES

A. The summer program lasted four weeks; classes met from 10:00 A.M. to 2:00 P.M. Monday through Thursday (see appendix for exact schedule).

1. English classes were divided into two sections of eleven students each. Students met two times per week with Rupert Vaughn and two times per week with Bill Sterling, each teacher stressing different but complementary skills. Student tutoring was given on a daily basis.
2. Mathematics classes met four times per week with Terry Sterling. In addition, student tutoring was given on a daily basis. The format of the mathematics classes was as follows: Monday and Tuesday -- group sessions which emphasized participation and interaction; Wednesday and Thursday -- individual mathematics lab and tutoring. Students worked through a series of work sheets which ranged from adding whole numbers to algebraic equations. Students worked at their own pace and only at skills that they had not already mastered.

4. FINANCIAL AID

Each student received a stipend of $19.50 per week for a total of $78.00. This covered transportation and lunch. In addition, College Discovery paid for books and any materials needed.

The stipend was given to the students at the beginning of the semester in one lump sum. It was understood that if anyone dropped out of the program they would have the $78.00 deducted from their initial check in the Fall. This was the only way the financial aid office could fund the students.

III. RESULTS

A. QUANTITATIVE RESULTS

TABLE 1

Means and t Test for Comparison of "The 1972 August Developmental Project", Group A, and the Control Group B (Non-1972 August Developmental Project Participants) on the Nelson-Denny Comprehension Test.

Nelson-Denny Comprehension Test

	Mean	t
Group A	+14.5	4.89
Group B	+ 2.3	

$P < .01$ level

The data in Table 1 indicates that there is a significant difference between the two groups.

TABLE 2

Means and t Test for Comparison of "The 1972 August Developmental Project, Group A, and the Control Group B (Non-1972 August Developmental Project Participants) on the Nelson-Denny Vocabulary Test.

Nelson-Denny Vocabulary Test

	Mean	t
Group A	+2.78	1.34
Group B	-1.00	

The data in Table 2 indicates a non-significant trend toward an improved vocabulary for Group A but there is no actual significance between the two groups.

TABLE 3

Means and t Test for Comparison of "The 1972 August Developmental Project, Group A, and the Control Group B (Non-1972 August Developmental Project Participants) on the Combined Nelson-Denny Comprehension and Vocabulary Tests.

Total Nelson-Denny Comprehension and Vocabulary Scores

	Mean	t
Group A	17.9	4.2
Group B	1.3	

$P < .01$

The data in Table 3 indicates that there is a significant difference between the two groups.

TABLE 4

Means and t Test for Comparison of "The 1972 August Developmental Project, Group A, and the Control Group B (Non-1972 August Developmental Project Participants) on the College Discovery Mathematics Placement Test.

College Discovery Mathematics Test

	Mean	t
Group A	+2.4	2.66
Group B	-1.7	

$P < .02$

The data in Table 4 indicates that there is a significant difference between the two groups.

TABLE 5

Comparison of "The 1972 August Developmental Project, Group A, and the Control Group B (Non-1972 August Developmental Project Participants) on the First College Discovery Mathematics Examination.

College Discovery Mathematics Examination

	Mean	t
Group A	12.7	.45
Group B	12.0	

The data in Table 5 suggests that there is no significant difference between Group A, the 1972 August Developmental Project, and the Control Group B.

TABLE 6

Before "The 1972 August Developmental Project" those who participated were all designated to take English I and Math I (Developmental Courses) in the Fall 1972 semester.

After the completion of the project, the Placement Tests rendered students eligible to take the following courses:

Math 15	8	students
Math 1	10	
Both 15 and 1	4	
Total:	22	students

English 110, 111	11	students
English 1	11	
Total:	22	students

B. QUALITATIVE RESULTS

Refer to appendix for student questionnaire.

All 22 of the students in the program responded favorably to the experience they had. (22 yes, 0 no)

18 out of 22 students felt that the courses increased their confidence in succeeding in college.

All 22 students felt that they would recommend the summer program to their friends.

15 out of 22 students felt they made good use of the counseling services offered. Those 15 students found the counseling to be quite helpful. Those who did not seek out counseling were generally unaware of the services or felt they had no immediate need of counseling.

Some students felt that they needed more time to accomplish what they had set out to do. (7)

Nineteen students felt that they needed more help in mathematics and six students felt more help was needed in English.

Eight students studied an average of one hour per day. Six students studied an average of two to three hours per day. Three students studied an average of three to five hours per day. One student did not study at all and four did not respond to the question.

Seven students used the library facilities and eleven did not; four did not answer the question.

All 22 students felt the courses were helpful.

ATTENDANCE

English

Nine students did not cut any classes.
Seven students cut one out of sixteen classes
Five students cut two out of sixteen classes.
One student cut three out of sixteen classes.

Mathematics

Six students did not cut any classes.
Seven students cut one class.
Seven students cut two classes.
Two students cut five classes.

Total = 16 English class hours and 16 mathematics class hours
Total class hours = 32 x 22 students = 704 class hours
Total absences = 51
Attendance = 93% positive

IV. DISCUSSION

It is rather obvious from both the quantitative and qualitative statements in the Results section that "The 1972 August Developmental Project" was a success. More than half the students who participated in the program demonstrated that they were capable of doing regular rather than remedial work at the end of the project. This is not to say that the other students were not successful. Even though they still needed remedial courses their skills and confidence had considerably improved. Students experienced positive feelings and success in mathematics and English in some instances for the first time in their lives.

At the outset of the program the instructional staff had unintentionally assumed that the participants in the program were going to be working on a higher level than they were actually capable of doing. Initially, this created a great deal of frustration, but was worked out when the faculty began to meet students "where they were at." This position developed a mutual respect that lasted throughout the entire summer.

Although the students had a good time and this was certainly one of the reasons that motivation was so high, they did not just have a good time. They were part of a very intensive learning experience as well -- an experience which helped them to overcome deficiencies that were in part due to an inadequate high school education. The learning, however, would probably not have taken place if there was not a strong social unity among the students, student tutors, teachers and counselor. The informal social atmosphere was more than just a "social rap" and it helped to break down traditional barriers that so often interfere with the real educational process. The learning that took place in the classroom and the social learning that took place through informal interactions blended in such a way so that they complimented each other. The program set out to break through traditional barriers that usually exist in the college community. This demystification of the educational process was definitely helpful in preparing students to cope with the diversity of the experience and personalities.

The fact that scores increased so significantly was in part also due to the fact that students started to look to the group as a resource rather than just the teacher. The participants did not take a complacent role and seemed more comfortable in asserting themselves. They frequently challenged the instructors and fellow students in a manner that this writer was previously unaccustomed to seeing. This was probably related to the non-threatening, non-competitive atmosphere where the faculty was seen as non-authoritarian, rational, and concerned.

The "1972 August Developmental Project" obviously went beyond just feelings and the usual qualitative rhetoric, as was indicated by the significantly higher scores in mathematics and English at the end of the program.

Emphasis was on a global rather than specific approach and this may be why there was not a significant upgrading of vocabulary. However, because of the short length of time allotted this seemed like the most

practical approach to the overall problems that the students were dealing with when they volunteered for the experiment. Although the vocabulary scores were not significantly higher, there appeared to be a positive trend. As comprehension increases over a long period of time, it is reasonable to assume that vocabulary will also increase.

The four-hour work day allowed students to work hard, concentrate, and accomplish what they set out to do. This closure was important in maintaining involvement and reinforcing the positive feelings that were being generated. Involvement undoubtedly could also be attributed to the student's motivation which was apparent from the commencement of the program. What the program did not do was stifle this motivation but allowed it to develop in a free but serious environment. One striking factor was that the more involved students challenged those on the periphery to become part of what was happening. Motivation continued even after the completion of the program. Although some students did not finish the books they were reading during the four-week period, they continued to read them anyway. There was a feeling of great participation from all from the beginning until the end and this most definitely accounted in part for the highly significant results.

During the middle of the project it was suggested by the students that they wanted to go see a play called "Don't Play Us Cheap." This gave the students a chance to see a play and the teachers a live context for the discussion of interpretation and meaning. Mainly this experience knitted the group together and injected spirit into the four weeks. It also helped to demonstrate that students need to learn to probe deeper for the point of view. It also helped to magnify the problem that all too frequently class presentations were sketchy and superficial. However, students felt free to ask provocative questions which stimulated discussion.

As the participants in the program became gradually more turned on to what they were doing, probably because they could readily see the results, they began to listen and feel respectful of themselves and the College Discovery Program. Before they entered "The 1972 August Developmental Project," College Discovery was pretty much a mystery. Student tutors were also very helpful and served as a model whom students could trust and feel close to when things became difficult. As the program developed, students began more and more to see the importance of being able to communicate their feelings and ideas in writing and oral expression.

Counseling was also an important component of the program. The counselor like other faculty in the program was nonauthoritarian and students felt free to come in to discuss their problems. Most of these problems were not complex in nature and could be resolved in a short period of time. However, several things did come up that cound not be resolved because of the lack of time. Students seemed to be more aware of what it takes to survive in college and began to realize the importance of developing an educational strategy.

In weekly meetings with students and faculty, it became apparent that time was the greatest problem. The program seemed over just when things really began to happen. Four weeks of intensive work was just not enough; one barely scratches the surface of the problem in this period of time.

V. CONCLUSION AND RECOMMENDATIONS

A. CONCLUSION

1. The summer program served as a bridge between high school and the College Discovery experience.

2. The "1972 August Developmental Project" better utilized the school year. There was good use of time and talent.

3. Because of concerned administration, faculty and students, "The 1972 August Developmental Project" was an unqualified success. (Cite data in the Results section)

4. Students can significantly increase their reading comprehension and mathematics skills in a relatively short period of time.

5. It is difficult, but not impossible, to increase vocabulary levels in a short period of time. It may be that vocabulary will increase as a bi-product of increased comprehension and confidence to read.

6. The summer program should be longer than four weeks to be more effective.

7. Students will attend if they feel that what they are doing is meaningful and helpful.

B. RECOMMENDATIONS

1. The summer program should be six weeks in length, and if possible, be held during the last six weeks of the summer so that there is a continuity between the summer and fall semester. One of the reasons that scores dropped so dramatically for students who did not participate in the summer program but had remedial needs, was that there was a time lapse in which many skills were forgotten, especially in mathematics.

2. The program should be increased from 22 to 50 students coming from the lowest sector of the spring 1973 placement testing program.

3. Since the learning center will be functioning on a year-round basis, it may be worth considering that this be a mandatory part of the program for those who have serious mathematics and English deficiencies. This, however, could present a problem since one of the factors in the success of the 1972 August Developmental Project was student motivation. No one was forced or coerced into

attending during the summer. It was strictly a voluntary experience.

4. The staff should be increased to include four English teachers, one of whom should be a remedial reading specialist, and at least two mathematics teachers.

5. There should be two counselors. The counselors would be responsible for orienting the students to the college on an individual basis and in groups. This would also help give the students the tools to survive and cope with college.

6. There should be one individual responsible for administering and coordinating the program. This person should not do any counseling during the summer because of conflict of interest and inadequate time to function in two roles.

7. There should be four full-time student aides to do tutoring, help with orientation, and other miscellaneous duties. These students should be former College Discovery graduates who are now attending another college or have graduated from a four-year institution.

8. There should be at least two field trips planned by the students.

9. There should be additional developmental courses in other areas that appeal to students, i.e., psychology, sociology, and urban studies.

10. The stipend should be distributed in one lump sum at the beginning of the program; the counselor should help the student to be aware of the responsibility of budgeting money. It is understood that the student will sign an agreement that if he/she chooses to withdraw from the summer program or if there are too many absences, the student will reimburse the program from the fall semester checks.

11. There will be no grades in developmental courses, only Pass/Repeat. Pass means that the student may be eligible for regular courses dependent on scores at the end of the program; repeat means that the student must continue to take developmental courses in the deficient areas until the scores are high enough to go into regular 3-credit courses. In addition, the teachers will submit an evaluation of the student's progress, strengths, weaknesses, etc. (see appendix). A copy of this evaluation will go to the student and one copy to the student's counselor. This will help in future educational planning.

12. Class size should be limited to 10 students in developmental courses.

13. An evaluation should be done by everyone participating in the program. In addition, there should be an evaluation done by a research team that is not directly involved in the program. This is for the purpose of objectivity.

14. There should be a non-authoritarian though serious atmosphere where there is a maximum of interpersonal contact available.

15. There should be a follow-up study of all summer programs to see if their success carries from one semester to the next.

Note: Due to poor reproducibility, the appendices have been omitted.